

We Claim:

1. A baking oven for producing baked molded bodies, comprising:

an oven having a planar baking line extending in a longitudinal direction thereof from an input station to an output station through an elongated baking space;

a plurality of baking molds for moving along said baking line from the input station to the output station, said baking molds comprising top baking plates and bottom baking plates lying on top of one another in pairs, with baking surfaces of said top and bottom baking plates respectively defining top and bottom surfaces of the molded bodies baked in said baking molds;

a lower conveyor defining a lower path of revolution with an upper run extending along said baking line, said lower conveyor transporting said baking molds from the input station through said baking line to the output station and transporting only said bottom baking plates back from the output station to the input station, said lower conveyor carrying the bottom baking plates along the lower path of revolution;

an upper conveyor defining an upper path of revolution with a lower run extending along said baking line, said upper

conveyor lowering said top baking plates onto said bottom baking plates supported on said lower conveyor at a beginning of said baking line to form said baking molds, and transporting only said top baking plates back from the output station to the input station, said upper conveyor moving said top baking plates, with said plates suspended and said upper baking surfaces facing down, along said upper path of revolution; and

aligning elements mounted to said top and bottom baking plates for engaging one another as said top baking plates are lowered onto said underlying bottom baking plate, to thereby align said top baking plate and said bottom baking plate.

2. The baking oven according to claim 1, which comprises horizontal bearing bars consecutively disposed on said upper conveyor in the longitudinal direction, and lateral hangers suspending said top baking plates from said horizontal bearing bars, each of said lateral hangers comprising an upper hanger part attached to said bearing bar and a lower hanger part detachably linked to said upper hanger part, said lower hanger part being attached to a respective said top baking plate, wherein said bearing bars are fastened to two continuous transport chains revolving in the longitudinal direction, and said lower run of said upper path of revolution drops along said baking line toward said bottom baking plates, so that

said lower hangers of said top baking plates that have been set down on said bottom baking plates are lifted off from said upper hangers passing through said lower run of said upper path of revolution.

3. The baking oven according to claim 2, wherein said bearing bars are bearing bolts said upper hanger parts are formed by portions of said bearing bolts, and said lower hanger parts are formed with laterally open recesses for receiving said bearing bolts with vertical play.

4. The baking oven according to claim 3, wherein each lower hanger part is formed with a vertically aligned bearing plate with said laterally open recess, and said recess includes an upper protrusion forming said bearing element of said lower hanger part.

5. The baking oven according to claim 1, wherein:

said upper conveyor includes hangers disposed adjacent one another in pairs and in succession in the longitudinal direction, and said hangers are borne by two continuous transport chains revolving in the longitudinal direction;

each said hanger includes an upper hanger part attached to a respective said transport chain and a lower hanger part

detachably coupled with said upper hanger part and attached to a respective said top baking plate;

each said top baking plate is suspended at two mutually adjacent hangers, and said lower run of said upper conveyor drops along said baking line toward said bottom baking plates; and

said lower hanger parts of said top baking plates that have been set down on said bottom baking plates are lifted from said upper hanger parts while passing through said lower run.

6. The baking oven according to claim 5, wherein said upper hanger parts are formed by horizontally aligned bearing bolts fastened to said transport chains, and said lower hanger parts are formed with laterally open recesses in which said bearing bolts are received with vertical play.

7. The baking oven according to claim 6, wherein each said lower hanger part comprises a vertically aligned bearing plate in which said laterally open recess is formed, and said recess comprises an upper protrusion forming a bearing element of said lower hanger.

8. The baking oven according to claim 1, wherein said upper conveyor includes hangers revolving along said upper path of

revolution in the longitudinal direction, each of said hangers including an upper hanger part borne by said upper conveyor and a lower hanger part loosely coupled with said upper hanger part and fastened to a respective said top baking plate, wherein said lower run of said upper path of revolution along the baking line drops toward said bottom baking plates, and said lower hanger parts of said top baking plates that have been lowered onto said bottom baking plates are taken off the upper hanger parts while passing through said lower run.

9. The baking oven according to claim 8, wherein said upper hanger parts are fastened to a continuous transport chain revolving in the longitudinal direction and comprising bearing elements for said lower hanger parts.

10. The baking oven according to claim 9, wherein said bearing elements of said upper hanger parts are constructed as horizontally aligned bearing bolts and said bearing elements of said lower hangers wrap around said bearing bolts from above.

11. The baking oven according to claim 9, wherein said bearing elements of said upper hanger parts are constructed as horizontally aligned bearing bolts received, with vertical play, in laterally open recesses formed in said lower hanger parts fastened to said top baking plates.

12. The baking oven according to claim 11, wherein said lower hanger parts comprise bearing plates protruding upwardly from said top baking plates, and said bearing plates are formed with a respective laterally open recess receiving a bearing bolt of an upper hanger with vertical play and which comprises an upper protrusion forming a bearing element of the respective said lower hanger part.

13. The baking oven according to claim 1, wherein said aligning elements of said top baking plates are formed of aligning bolts aligned horizontally transverse to a direction of revolution, and said aligning elements of said bottom baking plates are formed with vertically aligned receiving slits and insertion ramps, and wherein said aligning bolts of said top baking plates engage in said receiving slits of said bottom baking plates when said top baking plate is lowered onto the respectively underlying bottom baking plate, and said to baking plate is thereby aligned with said bottom baking plate.